<u>REMARKS</u>

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application.

Disposition of Claims

Claims 1-30 are currently pending in this application. Claims 9, 10, 12, 13, 20, 26, 27, 29, and 30 have been canceled by this reply. Claims 1, 11, 25, and 28 are independent. The remaining claims depend, directly or indirectly, from claims 1, 11, 25, and 28.

Claim Amendments

The independent claims have been amended to clarify the present invention. Independent claim 1 now recites the limitations of dependent claims 9 and 10 and, in part, the limitations of dependent claim 2. Thus, amended independent claim 1 now recites that user data is used to select the portion of the golden data and the portion of the test data.

Further, the amended independent claims recite "wherein the comparison result is used to debug the test simulator by correcting an error detected in the comparison result." Support for this amendment may be found, for example, in originally dependent, and now canceled, claims 9 and 10, original dependent claim 2, and in Figures 5 and 6 of the Specification. Independent claims 11, 25, and 28 have been amended to include similar subject matter as amended independent claim 1. No new subject matter is added by way of these amendments.

Rejections under 35 U.S.C. § 101

Claims 1-30 stand rejected under 35 U.S.C. § 101 as being directed toward non-statutory subject matter. As described above, independent claims have been amended to include a

tangible, useful result. Specifically, the comparison result is an output generated by the comparator, which is subsequently used to debug/correct errors detected in the comparison result. Thus, the usefulness and tangible result of the present invention lies in the debugging functionality that is able to be performed by using the generated comparison result to determine what type of error need to be debugged. Accordingly, withdrawal of this rejection is respectfully requested.

Rejections under 35 U.S.C. § 102

Claims 1-5, 7-8, 10-11, 13-16, 18-25, 27-28, and 30 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,141,630 ("McNamara"). Claims 10, 13, 20, 27, and 30 have been canceled by this reply. Thus, rejection is now moot with respect to claims 10, 13, 20, 27, and 30. To the extent that this rejection may still apply to the remaining amended claims, this rejection is respectfully traversed.

As described above, the independent claims have been amended to recite that the comparison result is used to debug the test simulator. As admitted by the Examiner on page 6 of the Office Action mailed April 6, 2006, McNamara fails to disclose or suggest using the comparison result to debug the test simulator. Further, McNamara also fails to disclose or suggest that user data is used by the system to select portions of golden data and portions of test data for purposes of comparing the golden data and the test data.

Specifically, from the rejection of the claims, it appears that the Examiner is equating the coverage data disclosed in McNamara with the user data of the claimed invention. The coverage data of McNamara is used to decide which portions of the design description need to be tested (*see* McNamara, col. 7, ll. 6-8). However, the coverage data of McNamara is not used at all in

relation to the *expected output* (*i.e.,* the golden data) calculated by the functional model. Rather, the coverage data is only used to determine how much of the design description is tested to produce test data that is then compared to the expected output of the functional model (*see* McNamara, col. 5, ll. 32-48). In contrast, the user data in the claimed invention is clearly used to select from *both* the golden data and the test data, as recited in the amended independent claims (*see* Specification, paragraph [0051], where comparison data that is part of the user data is used to select portions of both the golden data and the test data).

In view of the above, independent claims 1, 11, 25, and 28 are patentable over McNamara. Dependent claims 2-5, 7-8, 10, 13-16, 18-24, and 30 are patentable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Rejections under 35 U.S.C. § 103

Claims 9, 12, 26, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over McNamara. Claims 9, 12, 26, and 29 have been canceled by this reply. Thus, this rejection is now moot. However, to the extent that this rejection may still apply to the amended claims, this rejection is respectfully traversed.

The Examiner asserts that it would have been obvious to one skilled in the art to debug the test simulator. Applicant respectfully disagrees. Typically, when a comparison error is found between two sets of data that are supposed to be same, some form of *data* is debugged. For example, the simulation data or the test data itself may be debugged (*i.e.,* the code or the data fed into the test simulator is debugged). However, the amended independent claims recite that the actual *test simulator* is debugged when a comparison result error is detected. Thus, the tool (or machine) itself is debugged to correct any errors/problems with the tool/machine.

Applicant respectfully asserts that this is not an obvious extension of the present invention. Furthermore, providing the *option* of debugging the simulated design and/or the test simulator is also not obvious to those skilled in the art.

However, even assuming *arguendo* that McNamara discloses "debugging the test simulator using the comparison result," McNamara still fails to disclose or suggest user data that is used to select from both the golden data and the test data.

In view of the above, it is clear that amended independent claims 1, 11, 25, and 28 are patentable over McNamara. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 6 and 17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over McNamara in view of U.S. Patent No. 6,886,145 ("Davidson"). To the extent that this rejection may still apply to the amended claims, this rejection is respectfully traversed.
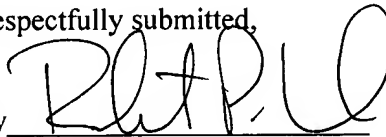
As described above, and admitted by the Examiner, McNamara fails to disclose or suggest using user data to select portions of the golden data and portions of test data. McNamara also fails to disclose or suggest using the comparison result to debug the test simulator. Further, Davidson fails to supply that which McNamara lacks, as evidenced by the fact that the Examiner relies on Davidson solely for the purpose of disclosing that the test simulator and the reference simulator execute the simulation image in lockstep (*see* Office Action mailed April 6, 2006, page 7). Thus, independent claims 1, and 11 are patentable over McNamara and Davidson, whether considered separately or in combination. Dependent claims 6 and 17 are patentable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Conclusion

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 03226/524001; P8928).

Dated: July 6, 2006   Respectfully submitted,

By _____

Robert P. Lord
Registration No.: 46,479
OSHA · LIANG LLP
1221 McKinney St., Suite 2800
Houston, Texas 77010
(713) 228-8600
(713) 228-8778 (Fax)
Attorney for Applicant

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